180595

Progress Energy

June 30, 2006

Mr. Charles Terreni
Chief Clerk and Administrator
South Carolina Public Service Commission
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: Progress Energy Carolinas' 2006 Resource Plan
Docket No. 2006-174-E

Dear Mr. Terreni:

Pursuant to Section 58-37-40 of the Code of Laws of South Carolina, Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. hereby submits for filing an original and ten copies of its 2006 Resource Plan.

Sincerely,

Len S. Anthony
Deputy General Counsel - Regulatory Affairs

Enclosures

c: Mitchell M. Perkins, State Energy Office
John Flitter, ORS

55006

Progress Energy Service Company, LLC
P.O. Box 1551
Raleigh, NC 27602

Progress Energy

Progress Energy Carolinas Resource Plan

South Carolina Public Service Commission
Docket No. _______________
June 30, 2006

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INTRODUCTION

OWNERSHIP

Progress Energy Carolinas, Inc. (PEC) is a wholly owned subsidiary of Progress Energy, Inc. (Progress Energy). Progress Energy is the parent company of PEC and certain other subsidiaries. PEC is subject to the rules and regulations of the Federal Energy Regulatory Commission (FERC), the Public Service Commission of South Carolina (SCPSC) and the North Carolina Utilities Commission (NCUC).

AREA OF SERVICE

PEC territory consists of an area approximately 34,000 square miles, and includes part of northeastern South Carolina, a substantial portion of the coastal plain of North Carolina extending to the Atlantic coast between the Pamlico River and the South Carolina border, the lower Piedmont section of North Carolina, and an area in western North Carolina in and around the city of Asheville. PEC provides electric services, retail and wholesale, to approximately 1.4 million customers. Major wholesale power sales customers include North Carolina Eastern Municipal Power Agency (Power Agency or NCEMPA) and North Carolina Electric Membership Corporation (NCEMC).

TOTAL CAPACITY RESOURCE

PEC's eighteen generating plants, composed of fossil, nuclear, hydroelectric, combustion turbines and combined cycle units, along with purchases and other resources, provide a flexible mix of supply options, with a summer generating capacity totaling over 14,000 MW, (including Power Agency's share).

1. The demand and energy forecast for at least a 15-year period.

Peak Load and Energy Forecast

Methodology

PEC's forecasting processes have utilized econometric and statistical methods since the mid-70s. During this time enhancements have been made to the methodology as data and software have become more available and accessible. Enhancements have also been undertaken over time to meet the changing data needs of internal and external customers.

The System Peak Load Forecast is developed from the System Energy Forecast using a load factor approach. This load forecasting method couples the two forecasts directly, assuring consistency of assumptions and data. Class peak loads are developed from the class energy using individual class load factors. Peak load for the residential, commercial, and industrial classes are then adjusted for projected load management impacts. The individual loads for the retail classes, wholesale customers, NCEMPA, and Company Use are then totalized and adjusted for losses between generation and the customer meter to determine System Peak Load.

Wholesale sales and demands include a portion that will be provided by the Southeastern Power Administration (SEPA). NCEMPA sales and demands include power which will be provided under the joint ownership agreement with them.

Assumptions

Over the long term, growth in the standard of living, as reflected in personal income and Gross Domestic Product (GDP) per capita, is expected to slow modestly relative to recent history. The labor force can be predicted with some reliability because the working population for the early 21st century has already been born. Real dollar prices are used to enhance model reliability during periods of varying inflation. The forecast assumes that our customers will tend toward continuing energy efficiency in the future.

The forecast of system energy usage and peak load does not explicitly incorporate periodic expansions and contractions of business cycles, which are likely to occur from time to time during any long-range forecast period. While long-run economic trends exhibit considerable stability, short-run economic activity is subject to substantial variation. The exact nature, timing and magnitude of such short-term variations are unknown years in advance of their occurrence. The forecast, while it is a trended projection, nonetheless reflects the general long-run outcome of business cycles because actual historical data, which contain expansions and contractions, are used to develop the general relationships between economic activity and energy use. Weather normalized temperatures are assumed for the energy and system peak forecasts.

Forecast

The Company's Peak Load and Energy Forecast are given in the table below. Wholesale sales have become more uncertain due to the 1992 Energy Policy Act, subsequent FERC initiatives related to the wholesale market, the continuing evolution of the wholesale market and market conditions. As expectations for the various wholesale contracts change, those expectations are appropriately reflected in the wholesale forecast.

ANNUAL PEAK LOAD and ENERGY FORECAST		
Year	System Peak Load (MW)	PEC System Energy (MWh)
2006	11,686	64,667,505
2007	11,873	65,414,895
2008	12,168	66,520,164
2009	12,389	67,735,969
2010	12,574	68,731,670
2011	12,810	69,954,428
2012	13,044	71,208,174
2013	13,281	72,482,486
2014	13,517	73,734,248
2015	13,758	75,004,626
2016	14,004	76,297,961
2017	14,245	77,555,477
2018	14,496	78,851,847
2019	14,745	80,140,488
2020	14,994	81,430,892
2021	15,241	82,692,435

2. The supplier's or producer's program for meeting the requirements shown in its forecast in an economic and reliable manner, including both demand-side and supply-side options.

PEC's "June 2006 South Carolina Resource Plan" can be found in Appendices A and B. This plan represents the self-build option that PEC would pursue absent alternatives. The Company will, however, pursue other alternatives, including DSM, joint participation in new generation, and power purchases, if cost effective, in place of the generation additions identified herein. Currently, PEC is negotiating to procure purchase power contracts for the 2011 and 2013 timeframe.

3. **A brief description and summary of cost-benefit analysis, if available, of each option, which was considered, including those not selected.**

Screening of Generation Alternatives

Methodology

Progress Energy Carolinas periodically assesses various generating technologies to ensure that projections for new resource additions capture new and emerging technologies over the planning horizon. This analysis involves a preliminary screening of the generation resource alternatives based on commercial availability, technical feasibility, and cost.

First, the commercial availability of each technology is examined for use in utility-scale applications. For a particular technology to be considered commercially available, the technology must be able to be built and operated on an appropriate commercial scale in continuous service by or for an electric utility. Reasonable levels of detail for emerging technologies were developed to allow PEC to screen the technology options and to stay abreast of potential economic benefits as they mature.

Second, technical feasibility for commercially available technologies was considered to determine if the technology met PEC's particular generation requirements and whether it would integrate well into the PEC system. The evaluation of technical feasibility included the size, fuel type, and construction requirements of the particular technology and the ability to match the technology to the service it would be required to perform on the Carolinas system (e.g., baseload, intermediate, or peaking).

Finally, for each alternative, an estimate of the levelized cost of energy production, or "busbar" cost, was developed. Busbar analysis allows for the long-term economic comparison of capital, fuel, and O&M costs over the typical life expectancy of a future unit at varying capacity factor levels.

For the screening of alternatives, the data are generic in nature and thus not site specific. The costs and operating parameters are adjusted to reflect installation in the southeastern United States in current year dollars. The operating characteristics are based on state-of-the-art designs, and for most technologies the performance and costs are based on a specific unit size. Cost and performance projections were made with the assistance of EPRI's Technical Assessment Guide (TAG) software and internal PEC resources.

Capital and operating costs reflect the impact of known and emerging environmental requirements to the extent that such requirements can be quantified at this time. As these requirements and their impacts are more clearly defined in the future, capital and operating costs are subject to change. Such changes could alter the relative cost of one technology versus another and therefore result in the selection of different generating technologies for the future.

Cost and Performance

Categories of capacity alternatives that were reviewed as potential resource options included Conventional, Demonstrated, and Emerging technologies. ***Conventional*** technologies are mature, commercially available options with significant acceptance and operating experience in the utility industry. ***Demonstrated*** technologies are those with limited commercial operating experience and are not in widespread use. ***Emerging*** technologies are still in the concept, pilot, or demonstration stage or have not been used in the electric utility industry. In the most recent assessment, the following generation technologies were screened:

Conventional Technologies (in common use)
Combined Cycle (CC)
  Nominal 240 MW, 1x1 configuration
  Nominal 473 MW, 2x1 configuration
Combustion Turbines (CT)
  Aeroderivative, augmented
  Nominal 80 MW frame
  Nominal 170 MW frame
Pulverized Coal (PC)
  Sub-Critical
  Super-Critical

Demonstrated Technologies (limited commercial experience; not widely used)
Atmospheric Fluidized Bed, Circulating (AFBC)
Integrated (Coal) Gasification/Combined Cycle (IGCC)
Nuclear Advanced Light Water Reactor (ALWN)
Municipal Solid Waste (MSW)
Refuse Tires (TIRES)
Wind
Wood

Emerging Technologies (pilot or demonstration stage)
Fuel Cell (FC)
Solar Photovoltaic (PV)

Of the technologies evaluated, not all are proven, mature, or commercially available. This is important to keep in mind when reviewing the data, as some options shown as low cost may *not* be commercially available or technically feasible as an option to meet resource plan needs and requirements at this time. In addition, the less mature a technology is the more uncertain and less accurate its cost estimate may be. As a result of this initial screening process, the following technologies were eliminated from further consideration by PEC, as discussed below.

Fuel cells appear to be competitive with the CC if projected cost reductions can be achieved, but they are currently still in the pilot or demonstration stage. Fuel cells can be assembled building block style to produce varying quantities of electric generation. However, as currently designed, a sufficient number of fuel cells cannot be practically assembled to create a source of generation comparable to other existing bulk generation technologies, such as CC. Further development of this technology is needed before it becomes viable as a resource option.

Generically, wood, municipal solid waste (MSW), and refuse tire burning generation have high busbar costs, as well as potential environmental emission challenges. Currently, our plan does include power purchased from an MSW facility under the PURPA Qualifying Facilities provision. These technologies, as well as other renewables like landfill gas, will be evaluated for their economics on a case-by-case basis and included as a resource option if appropriate.

Integrated (Coal) Gasification-Combined Cycle (IGCC) appears to offer the potential to be competitive with other baseload generation technologies and has fewer environmental concerns. This technology, though, has only been demonstrated on a small scale at a handful of installations and is not commercially available at this time. With the possible need for new baseload generation in the future, PEC will continue to monitor the progress of this technology.

Wind projects have high fixed costs but essentially no operating costs. Therefore, at high enough capacity factors they could become economically competitive with the lower-cost technologies identified. However, geographic and atmospheric characteristics affect the ability of wind projects to achieve those capacity factors. Wind projects must be constructed in areas with high average wind speed. In general, wind resources in the southeast are limited. The average wind speed in the southeast is below 14 miles per hour (except off coastal areas) and is not sufficient for wind projects to be an economic alternative. Because a wind project would not be expected to operate above 20-25% capacity factor in the Carolinas geographic area, it is not a viable alternative for intermediate duty. Further, because wind is not dispatchable, it is not suited to provide reliable peaking capacity.

Solar photovoltaic (PV) projects are also technically constrained from achieving high capacity factors. In the southeast, they would be expected to operate at a capacity factor of approximately 20% making them unsuitable for intermediate or baseload duty cycles. At the lower capacity factors, they, like wind, are not dispatchable and therefore not technically suited to provide reliable peaking capacity. Aside from their technical limitations, PV projects are not economically competitive generation technologies.

The capacity value of wind and solar resources depend heavily on the correlation between the system load profile and the wind speed and solar insolation. A recent Utility Wind Integration Group report noted that the capacity value of wind is typically less than 40% of nameplate capacity. Although wind and solar projects are currently not viable options for meeting *reserve* requirements due to their relatively high cost and uncertain operating characteristics, they may play a future role in PEC's *energy* portfolio. External economic and non-economic forces, such as tax incentives, environmental regulations, federal or state policy directives, technological breakthroughs and consumer preferences through "green rates", may heavily drive these types of technologies. As part of PEC's regular planning cycle, changes to these external conditions are considered, as well as any technological changes, and will be continually evaluated for suitability as part of the overall resource plan.

For the remaining technologies, a more detailed economic analysis was performed. These technologies included atmospheric fluidized bed circulating, three types of simple-cycle combustion turbines, two configurations of combined cycle, pulverized coal, and nuclear.

Appendix C provides an economic comparison of all technologies examined based on capital, operating, and fuel cost projections. Appendix D shows the technologies that are commercially available, technically feasible, and cost effective, making them viable generation alternatives in the Carolinas. This graph illustrates that, **based on current planning assumptions**, combustion turbines (CTs) are the most economical generation alternative for peaking duty cycles and pulverized coal (PC) units are the preference for intermediate load operation. Appendix D also shows that, currently, coal and nuclear technologies are cost effective options for base load operation. These findings are dependent on projections for fuel prices, capital costs, and costs associated with environmental compliance, all of which are dynamic and subject to change.

Resource Optimization

While the type of analysis illustrated in Appendices C and D provides a valuable ***screening*** tool for comparing technologies, it does not address the specific needs of any particular resource plan. To develop a cost-effective resource plan, the type of generation added must be matched with a utility's particular load and energy requirements. This is accomplished by conducting resource optimization analyses.

The resource planning process incorporates the impact of all demand-side management programs on system peak load and total energy consumption, and optimizes supply-side options into a final, integrated optimal plan that will provide reliable and cost-effective electric service to its customers. STRATEGIST, a proprietary computer model of New Energy Associates, is used to conduct an economic evaluation of PEC's existing resource portfolio and viable capacity alternatives for satisfying reliability requirements. The primary output of STRATEGIST is a Cumulative Present Worth Revenue Requirements (CPWRR) comparison of all of the viable resource combinations. STRATEGIST considers thousands of combinations of generation alternatives and ranks each of the resource combinations based on cost performance.

PEC's "June 2006 South Carolina Resource Plan" can be found in Appendices A and B. This plan represents the self-build option that PEC would pursue absent alternatives. The Company will, however, pursue other alternatives, including DSM, joint participation in new generation, and power purchases, if cost effective, in place of the generation additions identified herein.

4. **The supplier's and producer's assumptions and conclusions with respect to the effect of the plan on the cost and reliability of energy service, and a description of the external, environmental and economic consequences of the plan to the extent practicable.**

Effect of plan on cost of energy service

As discussed in Item 3, the Company's resource planning process incorporates demand-side and supply-side resource options to produce an optimal plan for providing reliable and cost-effective electric service to its customers. PEC's current Resource Plan continues to provide reliable and cost-effective energy service. This plan includes combustion turbine (CT) and combined cycle (CC) additions through 2012. In the longer term, the Company is evaluating the economics of new coal and nuclear capacity, in addition to gas-fired alternatives. The plan also includes renewal of operating licenses for the Company's Tillery and Blewett hydro plants (filed April 26, 2006), and the Robinson, Brunswick, and Harris nuclear facilities.

Peaking resources such as CTs are operated during peak load periods or emergency conditions. Combustion turbines have relatively low capital costs but higher operating costs than intermediate or base load generation, and are the most cost-effective new resource when a generator is needed to operate less than roughly 15% of the time. Combustion turbines can be started quickly in response to a sharp increase in customer demand and help supply power during cold winter mornings and hot summer afternoons.

In prior resource plan filings, combined cycle units, which consist of combustion turbines equipped with heat recovery steam generators, were shown to be the most cost-effective new resource for satisfying intermediate generation needs. However, due to changes in capital cost of new resources and higher projected natural gas prices, current economic screening shows pulverized coal generation may be the most economical intermediate load resource addition. Intermediate units have higher capital costs than peaking units, but lower operating costs. Intermediate generation resources will reduce generation produced by less efficient combustion turbines burning both gas and oil. These fuel savings will directly benefit ratepayers. Intermediate resources take several hours to start up and bring to full power output. These facilities are best utilized to operate at higher capacity factors than peaking units, and to respond to more predictable system load patterns.

Baseload units, which consist of coal and nuclear, are the most cost-effective new resource when generation is needed to provide service for a very predictable and stable load with capacity factors ranging from about 60-100%. These units have the highest capital costs but lower operating costs.

The Company continues to study the feasibility of intermediate and baseload generation alternatives. The economics are driven by changes in fuel price assumptions, capital costs for permitting and constructing new facilities, and costs associated with environmental compliance. Alternatives being assessed include not only gas-fired units but also coal and nuclear facilities. Progress Energy is a member of the NuStart Energy Development consortium, which consists of other energy companies and reactor vendors, to support the new construction and operating licensing process for advanced nuclear power reactors. The goal of this group is to get a new, advanced-reactor nuclear plant under construction by the year 2010.

Nuclear Regulatory Commission (NRC) operating licenses currently expire in December 2014 and September 2016 for Brunswick Units 2 and 1, respectively, in July 2010 for the Robinson unit and in October 2026 for the Harris Plant. The application to extend the Robinson license for 20 years to the year 2030 was approved in April 2004. The license renewal application for the Brunswick Units was approved in June 2006 allowing Unit 2 to operate until December 27, 2034 and Unit 1 until September 8, 2036. The renewal application for Harris is expected to be made later in 2006. Baseload nuclear capacity is typically fully loaded due to its low operating cost, except during times of forced outage or refueling. Extension of operating licenses for the Company's existing nuclear facilities will continue to provide approximately 3,500 MW of low cost generation, thereby offsetting higher cost fuel sources and providing continued benefits to ratepayers.

Consistent with ongoing study and planning, the Company informed the Nuclear Regulatory Commission (NRC) in August 2005 of its plans to submit a combined operating license (COL) application for a nuclear power plant. It updated those plans Nov. 1, 2005, to include a second COL, one for Florida and one for the Carolinas. Each COL covers up to two reactors at each site. This step is necessary to obtain a license should the Company decide that a new nuclear unit is the best option for meeting the need for additional generation. The application for the COL could be filed in late 2007 or early 2008. If approved by the NRC, construction could begin as early as 2010, and a new plant could be online around 2016. The licensing process, once completed, gives the permit holder the ***option*** to construct and operate units on a specific site; it does not obligate the Company to build.

In January 2006, PE announced that the Harris Nuclear Plant site near New Hill, N.C., had been selected to evaluate for possible future nuclear generation expansion. The Harris site was chosen due to its proximity to cooling water, transmission lines, and to Progress Energy Carolinas' largest area of customer concentration. Progress Energy also announced it has selected Westinghouse Electric Company to supply the reactors for the potential future expansion of the Company's nuclear generation in the Carolinas. These announcements are important next steps in the process as the Company continues to evaluate options to meet the demands of its rapidly growing customer base.

A final decision to build another nuclear plant is still years away. It will be based on many factors, including public and political support, regulatory approval and forecasts for energy demand and economic conditions later this decade. In order to provide the most reliable, safe and efficient mix of energy resources for its customers, PEC is taking steps now to keep the option for nuclear open and viable in the future. PEC will continue to refine its cost estimates and assess environmental compliance strategies to ensure the Company plans for the most economical and reliable generation additions.

Effect of plan on reliability of energy service

The reliability of energy service is a primary input in the development of the Resource Plan. Utilities require a margin of generating capacity reserve available to the system in order to provide reliable service. Periodic scheduled outages are required to perform maintenance and inspections of generating plant equipment and to refuel nuclear plants. Unanticipated mechanical failures may occur at any given time, which may require shutdown of equipment to repair failed components. Adequate reserve capacity must be available to accommodate these unplanned outages and to compensate for higher than projected peak demand due to forecast uncertainty and weather extremes. In addition, some capacity must also be available as operating reserve to maintain the balance between supply and demand on a real-time basis.

The amount of generating reserve needed to maintain a reliable power supply is a function of the unique characteristics of a utility system including load shape, unit sizes, capacity mix, fuel supply, maintenance scheduling, unit availabilities, and the strength of the transmission interconnections with other utilities. There is no one standard measure of reliability that is appropriate for all systems since these characteristics are particular to each individual utility.

Reliability Criteria

PEC employs both deterministic and probabilistic reliability criteria in its resource planning process. The Company establishes a reserve criterion for planning purposes based on probabilistic assessments of generation reliability, industry practice, historical operating experience, and judgment.

PEC conducts multi-area probabilistic analyses to assess generation system reliability in order to capture the random nature of system behavior and to incorporate the capacity assistance available through interconnections with other utilities. Decision analysis techniques are also incorporated in the analysis to capture the uncertainty in system demand. Generation reliability depends on the strength of the interconnections, the generation reserves available from neighboring systems, and the diversity in loads throughout the interconnected area. Thus, the interconnected system analysis shows the overall level of generation reliability and reflects the expected risk of capacity deficient conditions for supplying load.

A Loss-of-Load Expectation (LOLE) of one day in 10 years continues to be a widely accepted criterion for establishing system reliability. PEC uses a target reliability of one day in ten years LOLE for generation reliability assessments. LOLE can be viewed as the expected number of days that load will exceed available capacity. Thus, LOLE indicates the number of days that a capacity deficient condition would occur, resulting in the inability to supply some portion of customer demand. Results of the probabilistic assessments are correlated to appropriate deterministic measures of reliability, such as capacity margin or reserve margin, for use as targets in developing the Resource Plan. However, the real measure of reliability is the loss of load expectation.

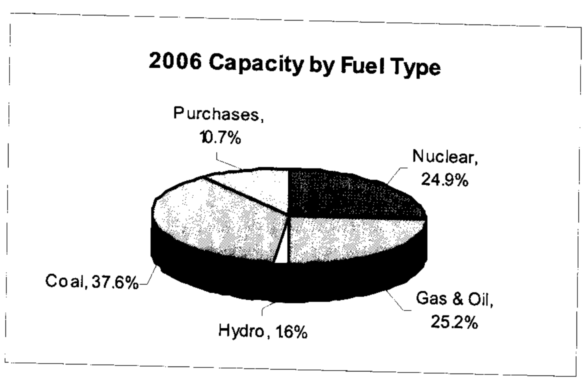
Adequacy of Projected Reserves

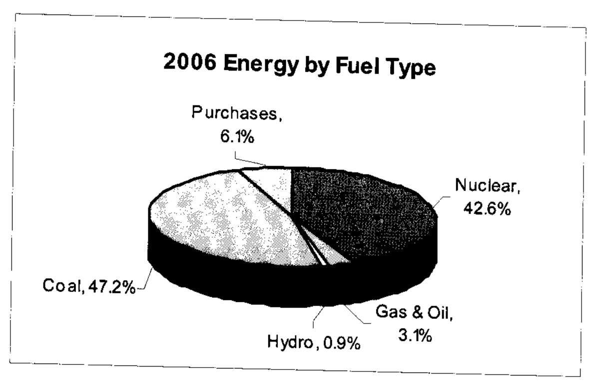
Reliability assessments have shown that reserves projected in PEC's Resource Plan are appropriate for providing an adequate and reliable power supply. The Company's Resource Plan reflects capacity margins in the range of approximately 11% to 17%, corresponding to reserve margins of approximately 12% to 21%. It should be noted that actual reserves as measured by megawatts of installed capacity continue to increase as load and the size of the system increase.

The reliability of PEC's generating system has significantly improved over the past several years. The addition of smaller and highly reliable CT capacity increments to the Company's resource mix improve the reliability and flexibility of the PEC fleet in responding to increased load requirements. Since 1996, PEC has added approximately 3,300 MW of new combustion turbine and combined cycle capacity to system resources, either through new construction or purchased power contracts. Shorter construction lead times for building new combustion turbine and combined cycle power plants allow greater flexibility to respond to changes in capacity needs and thus reduce exposure to load uncertainty. The Company's Resource Plan includes approximately 1,800 MW of additional new CT and CC capacity by 2012. Performance of PEC's existing nuclear and fossil fleet has greatly improved over the past few years, which has also significantly contributed to improved system reliability. All of these factors combine to ensure the Company's ability to provide an adequate and reliable power supply.

Figure 1 below shows PEC's capacity (MW) and energy (MWh) by fuel type projected for 2006. Nuclear and coal generation currently make-up approximately 63% of total capacity resources, yet account for about 90% of total energy requirements. Gas and oil generation accounts for about 25% of total supply capacity, yet only 3% of total energy.

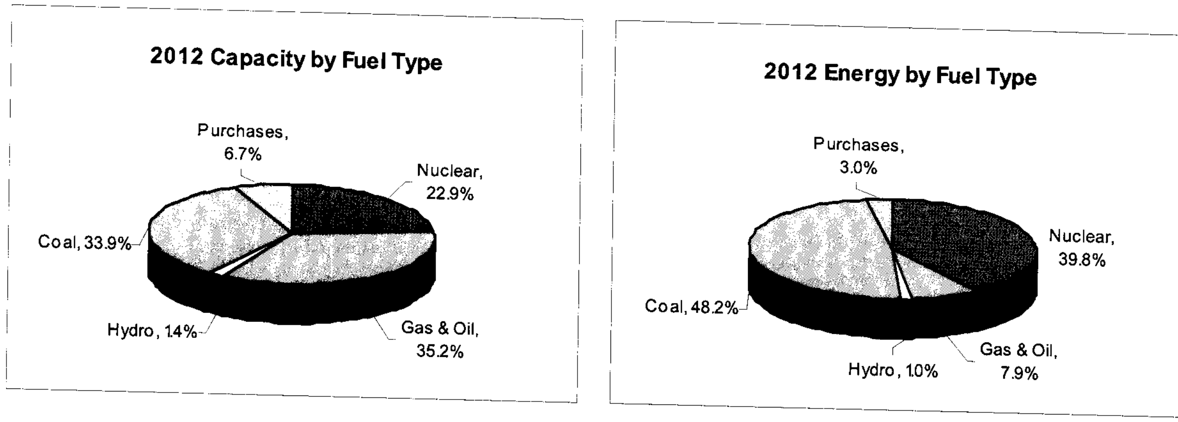
Figure 1





The Company's capacity and energy by fuel type projected for 2012 are shown in Figure 2 below. Gas and oil resources are projected to increase to about 35% of total supply capacity, while only serving about 8% of the total energy requirements. In 2012, nuclear and coal are projected to account for approximately 57% of total capacity resources and serve about 88% of total system energy requirements. Thus, even though near-term new capacity consists primarily of CT and CC units fueled by natural gas and oil, nuclear and coal resources will continue to account for the largest share of system capacity (MW) and satisfy most of the system energy (MWh) requirements.

Figure 2



Based on PEC's forecasted load and resources in the current Resource Plan, LOLE is expected to be within the reliability target of one day in ten years. The resources including reserves in the current plan are expected to continue to provide a reliable power supply.

Environmental consequences of plan

PEC's Resource Plan continues to rely on the use of gas-fired combustion turbines and combined cycle units through 2012. These units are the most environmentally benign, economical, large-scale capacity additions available. The new, advanced designs of these technologies are more efficient (as measured by heat rate) than previous designs, resulting in a smaller impact on the environment. Combined cycle generation, which utilizes the waste exhaust gases from the combustion turbines to produce additional electricity, is the cleanest and most efficient fossil-fueled generation currently available. The energy provided by combined cycle generation will have minimal environmental impact. The plan also includes renewal of operating licenses for the Company's existing nuclear facilities for continued operation of nuclear generation with essentially no air emissions impact. The Company's Resource Plan also reflects capacity derates to some of its coal-fired facilities in order to install controls necessary to ensure compliance with new environmental regulations. Progress Energy Carolinas continues to study and optimize its generation fleet to ensure economical operation and to minimize impact on the environment.

APPENDIX A

Progress Energy - Carolinas

June 2006 South Carolina Resource Plan Filing (Summer)

	2006	2007	2008	2009	2010	2011*	2012	2013*	2014	2015	2016	2017	2018	2019	2020
GENERATION ADDITIONS															
Wayne County CT			157												
Scrubber Derates		(31)	(39)	(38)			(5)	(16)							
Undesignated (1)				318	555	474*	318	750*		237	1,100				1,100
INSTALLED GENERATION															
Combustion Turbine	2,975	2,975	3,132	3,132	3,132	3,132	3,132	3,132	3,132	3,132	3,132	3,132	3,132	3,132	3,132
Combined Cycle	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556
Fossil	5,267	5,236	5,197	5,159	5,159	5,159	5,154	5,138	5,138	5,138	5,138	5,138	5,138	5,138	5,138
Hydro	218	218	218	218	218	218	218	218	218	218	218	218	218	218	218
Nuclear	3,485	3,485	3,485	3,485	3,485	3,485	3,485	3,485	3,485	3,485	3,485	3,485	3,485	3,485	3,485
Undesignated (1)				318	873	1,347	1,665	2,415	2,415	2,652	3,752	3,752	3,752	3,752	4,852
PURCHASES & OTHER RESOURCES															
SEPA	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109
NUG QF - Cogen	311	247	247	247	88	88	88	68	68	68	68	68	68	68	68
NUG QF - Renewable	16	16	16	9											
AEP/Rockport 2	250	250	250	250											
Broad River CT	817	817	817	817	817	817	817	817	817	817	817	817	817	817	817
TOTAL SUPPLY RESOURCES	**14,005**	**13,910**	**14,028**	**14,300**	**14,437**	**14,911**	**15,224**	**15,938**	**15,938**	**16,175**	**17,275**	**17,275**	**17,275**	**17,275**	**18,375**
PEAK DEMAND															
Retail	8,907	9,095	9,280	9,469	9,656	9,841	10,039	10,234	10,432	10,633	10,840	11,048	11,267	11,482	11,699
Wholesale	2,779	2,778	2,888	2,920	2,918	2,969	3,005	3,047	3,085	3,125	3,164	3,197	3,229	3,263	3,295
SYSTEM PEAK LOAD	11,686	11,873	12,168	12,389	12,574	12,810	13,044	13,281	13,517	13,758	14,004	14,245	14,496	14,745	14,994
Firm Sales	835	450	300	300	300	300	300	300	300	300	300	300	300	300	300
FIRM OBLIGATION	**12,521**	**12,323**	**12,468**	**12,689**	**12,874**	**13,110**	**13,344**	**13,581**	**13,817**	**14,058**	**14,304**	**14,545**	**14,796**	**15,045**	**15,294**
Large Load Curtailment	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319
Voltage Reduction	52	52	54	54	56	56	58	59	61	61	63	63	65	67	68
TOTAL LOAD	12,892	12,694	12,841	13,062	13,249	13,485	13,721	13,959	14,197	14,438	14,686	14,927	15,180	15,431	15,681
RESERVES (2)	1,484	1,587	1,560	1,611	1,563	1,801	1,880	2,357	2,121	2,117	2,971	2,730	2,479	2,230	3,081
Capacity Margin (3)	11%	11%	11%	11%	11%	12%	12%	15%	13%	13%	17%	16%	14%	13%	17%
Reserve Margin (4)	12%	13%	13%	13%	12%	14%	14%	17%	15%	15%	21%	19%	17%	15%	20%
ANNUAL SYSTEM ENERGY (GWh)	64,668	65,415	66,520	67,736	68,732	69,954	71,208	72,482	73,734	75,005	76,298	77,555	78,852	80,140	81,431

Notes:

* PEC is currently in discussions to procure purchased power contracts for the 2011 and 2013 timeframe

1) For planning purposes only; does not indicate a commitment to type, amount or ownership

2) Reserves = Total Supply Resources - Firm Obligations

3) Capacity Margin = Reserves / Total Supply Resources * 100

4) Reserve Margin = Reserves / Firm Obligations * 100.

APPENDIX B

Progress Energy - Carolinas

June 2006 South Carolina Resource Plan Filing (Winter)

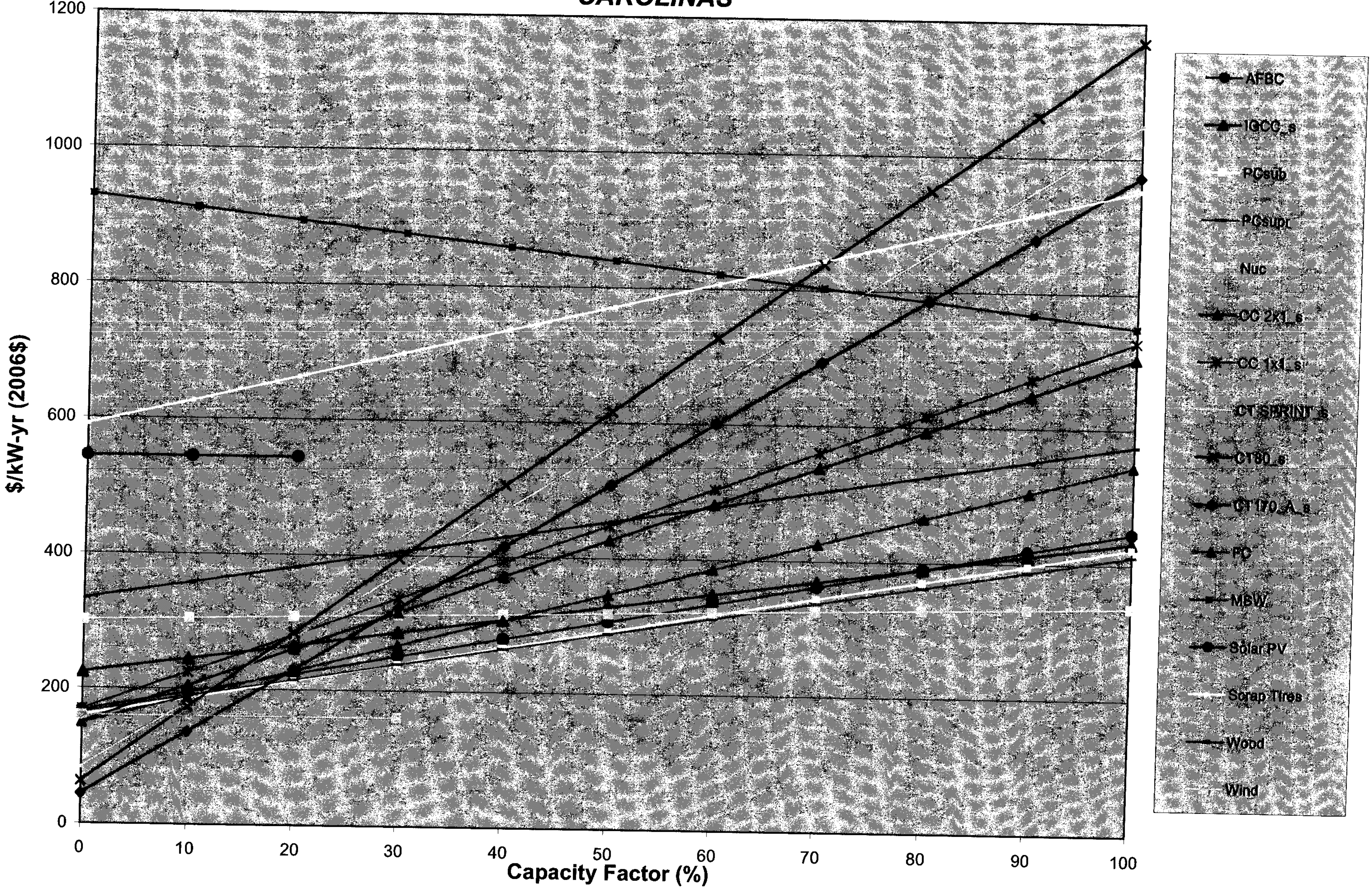
	06/07	07/08	08/09	09/10	10/11	11/12*	12/13	13/14*	14/15	15/16	16/17	17/18	18/19	19/20	20/21
GENERATION ADDITIONS															
Wayne County CT			185												
Scrubber Derates		(45)	(41)	(22)		(5)	(16)								
Undesignated (1)				668	390	557*	390	750*	278		1,100				1,100
INSTALLED GENERATION															
Combustion Turbine	3,474	3,474	3,659	3,659	3,659	3,659	3,659	3,659	3,659	3,659	3,659	3,659	3,659	3,659	3,659
Combined Cycle	648	648	648	648	648	648	648	648	648	648	648	648	648	648	648
Fossil	5,351	5,306	5,265	5,243	5,243	5,238	5,222	5,222	5,222	5,222	5,222	5,222	5,222	5,222	5,222
Hydro	216	216	216	216	216	216	216	216	216	216	216	216	216	216	216
Nuclear	3,505	3,505	3,505	3,505	3,505	3,505	3,505	3,505	3,505	3,505	3,505	3,505	3,505	3,505	3,505
Undesignated (1)				668	1,058	1,615	2,005	2,755	3,033	3,033	4,133	4,133	4,133	4,133	5,233
PURCHASES & OTHER RESOURCES															
SEPA	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109
NUG QF - Cogen	247	247	247	88	88	88	68	68	68	68	68	68	68	68	68
NUG QF - Renewable	16	16	9												
AEP/Rockport 2	250	250	250												
Broad River CT	842	842	842	842	842	842	842	842	842	842	842	842	842	842	842
TOTAL SUPPLY RESOURCES	**14,659**	**14,614**	**14,750**	**14,978**	**15,368**	**15,920**	**16,274**	**17,024**	**17,302**	**17,302**	**18,402**	**18,402**	**18,402**	**18,402**	**19,502**
PEAK DEMAND															
Retail	7,924	8,186	8,349	8,510	8,680	8,855	9,034	9,211	9,391	9,576	9,762	9,955	10,151	10,342	10,536
Wholesale	2,593	2,594	2,625	2,630	2,668	2,700	2,733	2,766	2,798	2,833	2,861	2,889	2,915	2,945	2,970
SYSTEM PEAK LOAD	10,517	10,780	10,974	11,140	11,348	11,555	11,767	11,977	12,189	12,409	12,623	12,844	13,066	13,287	13,506
Firm Sales	535	300	300	300	300	300	300	300	300	300	300	300	300	300	300
FIRM OBLIGATION	**11,052**	**11,080**	**11,274**	**11,440**	**11,648**	**11,855**	**12,067**	**12,277**	**12,489**	**12,709**	**12,923**	**13,144**	**13,366**	**13,587**	**13,806**
Large Load Curtailment	319	319	319	319	319	319	319	319	319	319	319	319	319	319	319
Voltage Reduction	186	190	194	197	201	206	208	213	217	222	226	230	235	239	244
TOTAL LOAD	11,557	11,589	11,787	11,956	12,168	12,380	12,594	12,809	13,025	13,250	13,468	13,693	13,920	14,145	14,369
RESERVES (2)	3,607	3,534	3,476	3,538	3,720	4,065	4,207	4,747	4,813	4,593	5,479	5,258	5,036	4,815	5,696
Capacity Margin (3)	25%	24%	24%	24%	24%	26%	26%	28%	28%	27%	30%	29%	27%	26%	29%
Reserve Margin (4)	33%	32%	31%	31%	32%	34%	35%	39%	39%	36%	42%	40%	38%	35%	41%

Notes:

* PEC is currently in discussions to procure purchased power contracts for the 2011 and 2013 timeframe

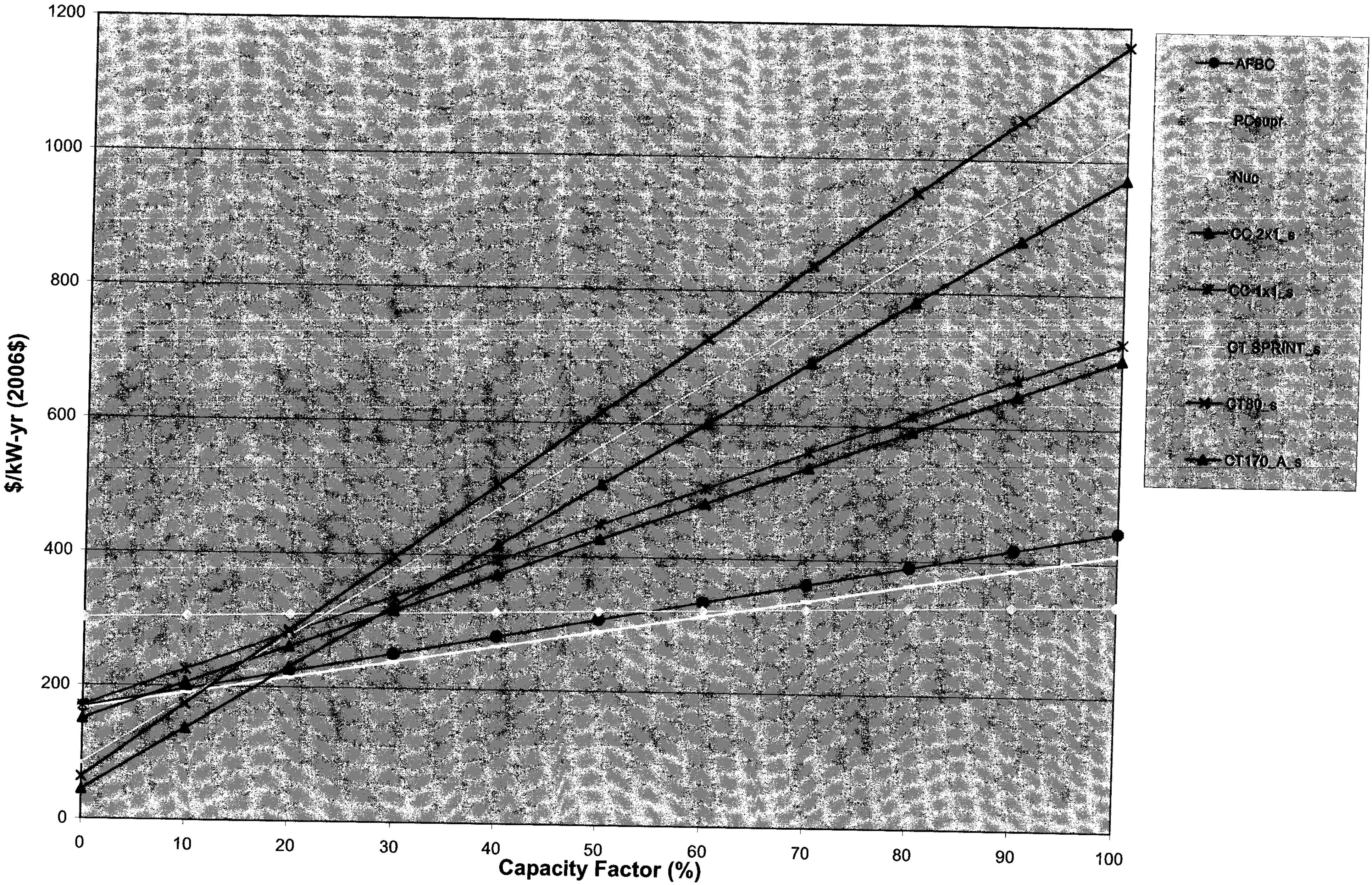
1) For planning purposes only; does not indicate a commitment to type, amount or ownership
2) Reserves = Total Supply Resources - Firm Obligations
3) Capacity Margin = Reserves / Total Supply Resources * 100
4) Reserve Margin = Reserves / Firm Obligations * 100.

APPENDIX C
Levelized Busbar Cost for All Technologies
CAROLINAS



NOTE: The graph above is based on generic capital, O&M, and fuel costs data.

APPENDIX D
Levelized Busbar Cost for Viable Technologies
CAROLINAS



NOTE: The graph above is based on generic capital, O&M, and fuel costs data.